

## PROJECT DESCRIPTION

## GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 175 (ANNAPOLIS ROAD) AND DAIRY FARM ROAD IN ANNE ARUNDEL COUNTY, MARYLAND. MD 175 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

## INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 175 APPROACHES OPERATING CONCURRENTLY AND THE DAIRY FARM ROAD APPROACH RUNNING ALONE.

## CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS), INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

## PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7631 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

## MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.02-01 (SHOULDER WORK)

STANDARD NO. MD-104.02-09 (FLAGGING OPERATION)

STANDARD NO. MD-104.02-13 (INTERSECTION FLAGGING OPERATION)

## PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. KIMBERLY TRAN  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (410) 841-1019  
MR. JOHN MAYS  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (410) 841-1013  
MR. MIKE HUBER  
DISTRICT UTILITY ENGINEER  
PHONE: (410) 841-1039

MR. ROBERT SNYDER  
ASSISTANT CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7631  
MR. RICHARD L. DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

## EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9016	1 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9044	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
9086	1 EACH	VIDEO INTERFACE EQUIPMENT: 1-8 CAMERAS
9571	103 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF: - 1 EACH D-3 SIGN (VARIABLE x 12 IN.) - SIGNAL POLE MOUNT - 2 EACH D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT - 2 EACH D-3(2) SIGN (VARIABLE x 12 IN.) - GROUND MOUNT - 1 EACH D-3(2) SIGN (VARIABLE x 16 IN.) - GROUND MOUNT - 1 EACH M1-5 SIGN (30 IN. x 24 IN.) - GROUND MOUNT - 1 EACH M1-5(5) SIGN (30 IN. x 72 IN.) - GROUND MOUNT - 1 EACH M2-1 SIGN (21 IN. x 15 IN.) - GROUND MOUNT - 3 EACH W3-3 SIGN (36 IN. x 36 IN.) WITH "NEW" PANEL (24 IN. x 24 IN.) AND FLAG - GROUND MOUNT

## EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL EQUIPMENT TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

## EQUIPMENT LIST "B"

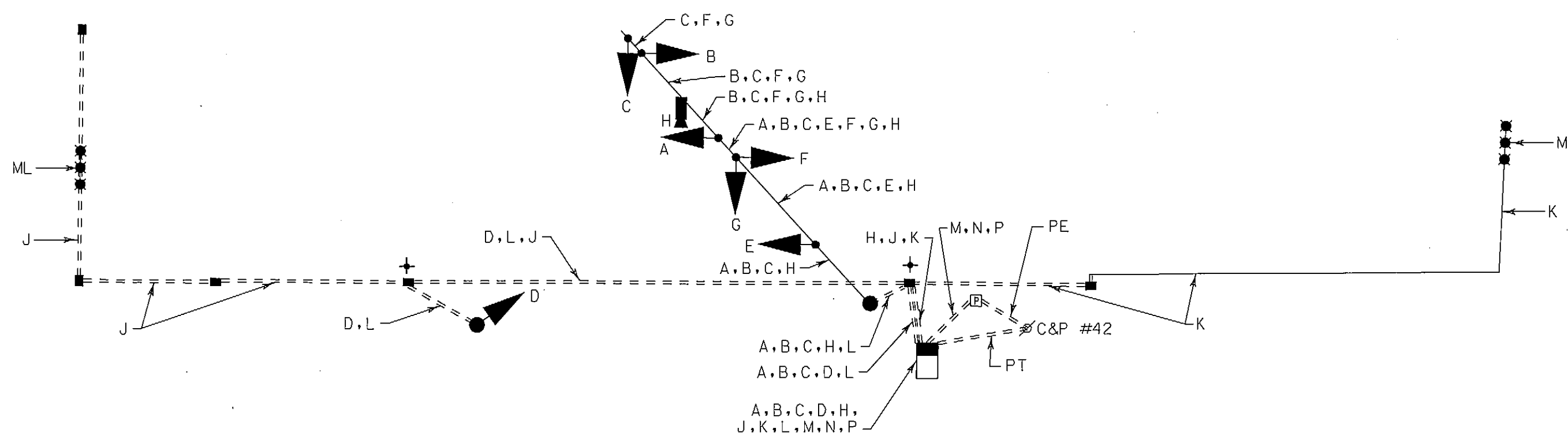
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1003	1 EACH	MAINTENANCE OF TRAFFIC
2002	2 C.Y.	TEST PIT EXCAVATION
5005	70 L.F.	24" HEAT APPLIED WHITE PERM PREF THERMO PVMT MARKINGS
5007	85 L.F.	REM OF EXISTING PERM PVMT LINE MARKINGS ANY WIDTH
8011	1 EACH	INSTALL BREAKAWAY PEDESTAL POLE-ANY SIZE
8017	1 EACH	MAST ARM POLE & 70 FT MAST ARM ANY 'T' DIMENSION
8019	1 EACH	MICROLOOP PROBE (ANY LENGTH) LEAD IN CABLE UP TO 1000 FT
8020	1 EACH	NON-INVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000'
8021	1 EACH	REM & DISPOSE MAT & EQUIP PER ASSIGN
8025	1 EACH	VIDEO DETECTION CAMERA & CABLE UP TO 500 FT
8026	5 L.F.	1 INCH DETECTOR SLEEVE GALVANIZED OR FLEXIBLE LIQUID TIGHT
8033	135 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8035	650 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8036	150 L.F.	WOOD SIGN SUPPORTS UP TO 4 X 6
8038	103 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8040	155 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8042	1 EACH	METERED SERVICE PEDESTAL EMBEDDED
8044	75 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG - THHN/THWN
8046	6 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8050	21 EACH	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8052	2 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8056	130 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8057	520 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8060	245 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
8065	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT

## WIRING DIAGRAM

## WIRING KEY

- A } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)  
B }  
C }  
D }  
E } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)  
F }  
G }  
H } VIDEO CAMERA DETECTION LEAD-IN CABLE  
J }  
K } MICROLOOP PROBE LEAD-IN  
L } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)  
M } 1-CONDUCTOR ELECTRICAL CABLE (NO. 8 A.W.G.)  
N }  
P }  
ML - MICROLOOP PROBE SET  
PT - PROPOSED UNDERGROUND TELEPHONE SERVICE  
PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE  
+ - 3/4 IN. X 10 FT. GROUND ROD



## PHASE CHART

1	2	3	4	5	6	7
(R)	(R)	(R)	(R)	(R)	(R)	(R)
(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
(G)	(G)	(G)	(G)	(G)	(G)	(G)

PHASE 2 + 6	G	G	G	G	G	R	R	←
2 + 6 CHANGE	Y	Y	Y	Y	Y	R	R	→
PHASE 4	R	R	R	R	R	G	G	↑
4 CHANGE	R	R	R	R	R	Y	Y	↓
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FL/R	FL/R	↔

TOD NO: XX347-14M  
SHA NO: AA126A52/B52  
MD 175 @ Dairy Farm Road



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 175 (ANNAPOLIS ROAD) @ DAIRY FARM ROAD  
GAMBRILLS, MARYLAND

## GENERAL INFORMATION SHEET

SCALE NONE ADVERTISED DATE 08/25/2011 CONTRACT NO. XX3475185

DESIGNED BY L.WAESCHE COUNTY ANNE ARUNDEL  
DRAWN BY L.WAESCHE LOGMILE 02017501.26  
CHECKED BY NLEARY TMS NO. K266  
F.A.P. NO. TOD NO.

TS NO. 4790 DRAWING TSP-2 OF 2 SHEET NO. 2 OF 2

PLOTTED: Thursday, August 25, 2011 AT 03:44 PM  
FILE: n:\1069-194\cadd\p2sg-n002\_dairyfarm\_k266.dgn



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